BCA (Part II) EXAMINATION 2008
C++ PROGRAMMING

Max Time : 3 Hours
Max. Marks : 50

Attempt any five questions. All questions carry equal marks.

1. (a) What are the characteristics of object-oriented language? What are the advantages of using OOPS? (b) What are the Application of Public, Private, and Protected keywords? Explain. 5x2

2. Explain the following with suitable C++ code fragment :

   (a) Recursion
   (b) Arrays
   (c) Structures

   3+4+3

3. Write a program in C++ to develop a class called employees for a company having various categories of employees like manager, clerk, accountant and worker. Define your own base class for employees and other classes should be derived from it. Display the particulars of all employees. 10

4. Explain the following using suitable C++ code fragment:
   (a) Inline Functions
   (b) Friend Functions 5+5

5. Differentiate between the following:
   (a) Constructor and Destructors
   (b) Overloading and Overriding 5+5

6. (a) Explain how dynamic memory Allocation is done.
   (b) What is an object, class, pointers and classes and nested classes? 4+6

7. (a) Explain how opening and closing of files are done.
   (b) Differentiate between function overloading and operator overloading. 5x2

8. What is Inheritance? Explain in brief the various types of inheritance. 10
9. Write short notes on any four of the following :

   (a) Pure Virtual Function
   (b) Structure
   (c) Pointers
   (d) Abstract Classes
   (e) Polymorphism
   (f) Member functions
   (g) Reusability. 4x 2.5

BCA (Part II) EXAMINATION 2008
COMPUTER GRAPHICS

Max Time : 3 Hours

Max. Marks : 50

Attempt any five questions. All questions carry equal marks.

1. (a) What are the various Input Devices? Explain them.
   (b) Explain Cathode Ray Tube with diagram. Why is it called a refresh tube? 5+5

2. (a) Explain Mid-Point Circle drawing algorithm with example?
   (b) write short note on Flickering? 5+5

3. Write short note on :
   (a) Area subdivision Algorithm.
   (b) Painters Algorithm. 5+5

4. Write matrix for the following transformation:
   (a) Simultaneous Shearing
   (b) Reflection about y-axis
   (c) Moving an object 2.5 units right and 4 units down
   (d) Moving an object 3 unit left and reflects about the x-axis
   (e) Rotation about 30^o in clockwise direction. 2x5

5. (a) Draw a line with endpoints (20,10) and (30,18) using line generation algorithm.
   (b) Explain Cohen-Sutherland Algorithm. 5+5

6. (a) Prove that composite translation is additive and composite scaling is multiplicative.
   (b) Prove that composite rotation is additive in nature. 5+5

7. Perform a 45^o rotation of a triangle A(0,0) B(1,1) C(5,2) about :
   (a) Origin
   (b) about (1,-1)
   Derive all the endpoints in both the cases 5+5

8. Write short notes on :
   (a) Light path in liquid crystal displays
   (b) Image processing.
   (c) Boundary Fill Algorithm
   (d) Flood Fill Algorithm. 3+2+2+3

BCA (Part II) EXAMINATION 2008
(COMMUNCATION SKILLS)

Max Time : 3 Hours

Max. Marks : 50

Attempt any five questions. All questions carry equal marks.

1. Define 'Communications' and explain the merits of written communication.

   Or

   Describe various barriers to effective communication. 10

2. Write a letter on behalf of M/s Rajkamal Publications to the Principal of Govt. College, Bikaner informing that the books they ordered have been dispatched.

   Or

   Write a strong demand letter to M/s Bhaskar Brothers asking due payments for furniture supplied by M/s Ashiyana Furniture. 10

3. Write an application for the post of Computer programmer in ICICI Bank giving particulars suited for the job.
   (Do not mention your personal name).

   Or

   What is Resume writing? What are the major points that should essentially be incorporated in resume writing? 10

4. Explain the difference between formal and informal reports and describe various sections of formal reports.

   Or

   Write an informal report describing cultural activities taken place in the youth festival organized by your college. 10

5. Draft a Notice as the Secretary of Student Union asking students to give their names for participation in annual program.

   Or

   What do you understand by Minutes Writing? Describe the important characteristics of Minutes Writing. 10

BCA (Part II) EXAMINATION 2008
CLIENT SERVER TECHNOLOGY

Max Time : 3 Hours

Max. Marks : 50

Attempt any five questions. All questions carry equal marks.

1. Explain the Client-Server approach with the elements of client-server architecture. Give any two examples that represent the client-server. 10

2. Describe the client-server application. Describe the characterization of client-server computing with client-server database. 10

3. What do you mean by client-server development tool? Explain any three advantages of client-server computing in out network application. 10

4. What do you mean by server and how it is perform different tasks in a network? Explain the steps to process the request in a network? 10

5. Explain the component of client-server? Explain the concept of CORBA with complete description. 10

6. Explain any four: 10

   (i) DLL
   (ii) Noval Netware
   (iii)Firewall
   (iv)Decryption
   (v) API

7. What do you mean by client with the role of client in a network? Write down the steps to perform a client application in network? 10

8. Explain the application partitioning and its types. Describe the advantages and disadvantages in network. 10

9. What is communication between client-server? Describe the communication protocol with the help of OSI and TCP. Explain the remote access protocol. 10

10.
   (i) What do you mean by Lan Manager and Network Administrator? Explain the task of network administrator.
   (ii) How can an application develop using RDBMS components? Describe the GUI design concept. 5+5

BCA (Part II) EXAMINATION 2008
DATABASE MANAGEMENT SYSTEM

Max Time : 3 Hours

Max. Marks : 50

Attempt any five questions. All questions carry equal marks.

1. What is DBMS? Explain in detail. Also discuss the Data Definition, Data Retrieval, Data Manipulation with suitable example. 10

2. Explain concurrent execution of Transaction and Serializability. Give definition and examples of conflict serializability and view serializability. 10

3. What is Data Placement? Explain placement of DDBMS and other components. 10

4. (a) Explain security and integrity of database.
   (b) How privileges grant and revoke on database? 10

5. Discuss the benefits of E-R diagram. Also construct an E-R Diagram for a car insurance company having more than one branch, with a set of customers, each of which own a car. Each car has a Number. 10

6. (a) What is Normalization? What is its purpose?
   (b) Write a short note on database integrity. 10

7. Create a code of payroll system using FoxPro having operation: 10

   (i) Add new Records
   (ii) Delete Records
   (iii)Edit Records
   (iv)Search Records

8. (a) What is difference between sorting and indexing? Discuss the all features of sorting and indexing by giving suitable example

   (b) Write a program in FoxPro to find Factorial of a number. 10

9. What is stored procedure and function? Differentiate procedure and function with example. 10

BCA (Part II) EXAMINATION 2008
JAVA PROGRAMMING

Max Time : 3 Hours

Max. Marks : 50

Attempt any five questions. All questions carry equal marks.

1. (a) Explain basic feature of Java. What is difference between C++ and Java?
   (b) Write short notes on :
   (i) JVM
   (ii) API
   (iii)JDK

2. (a) Explain break and continue statement with example, also explain break and continue statement with label.
   (b) Write a Java program to show how to handle Array index out of Bound Exception.

3. (a) How to create multilevel hierarchy in Java? Explain with Example.
   (b) A Java program using sequence Input Stream Class to concatenate two input streams.

4. (a) What is multithreaded programming Java? Write a Java program which makes sure that both the threads will be running alternatively irrespective of the scheduling strategy. [sleep() method in use].
   (b) Write short notes on :
   (i) Finalizer
   (ii) Final Class
   (iii) Final Variable.

5. (a) Write a Java Program to find area of circle and square using interface.
   (b) Consider the following Java Program

```
public  static example
    {
        public static void main(String arg[])
        {
            Example class ec= new example class();
            ec.method();
        }

    }
```

Class example class
{

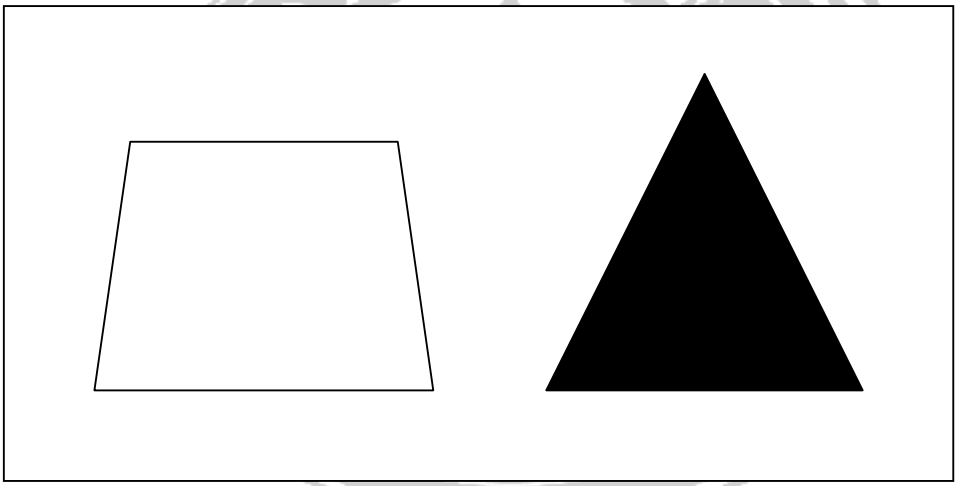
```
    Public void method ()
    {
        System.out.println ("Hello");
    }
}
```

In the above program the commented lines can be written in 4 different ways as shown below:

(i) public void method()
(ii) void method()
(iii) protected void method()
(iv) private void method()

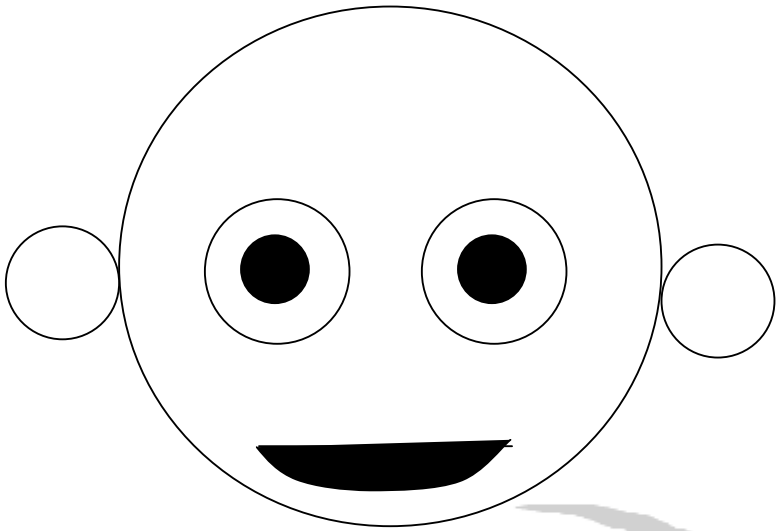
What will be the result in each case.

6. (a) What is package in Java? Explain creation of package.
(b) Write a Java Program to draw quadrilateral and a filled triangle as the following figure:



7. (a) Explain JavaBeans architecture also explain advantage of JavaBeans.

(b) Create an Applet for the following shape:



8. (a) Write short notes on the following :

   (i) ODBC
   (ii) JDBC
   (iii) CGI
   (iv) RMI

   (b) Explain CORBA services and products.